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## BREEDING BIRDS OF OHIO'S LAKE ERIE MARSHES

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### Abstract

The bird populations of 24 of Ohio's Lake Erie marshes were surveyed during the period 1 June-12 August 1980. One hundred thirty-eight bird species were encountered, of which 26 are included on the Ohio Department of Natural Resources "Special Species" list. The Great Blue Heron occurred at the greatest number of sites, followed by the Red-winged Blackbird, Mallard, Tree Swallow, Barn Swallow, and Song Sparrow. Eleven wetlands were judged to be especially significant because of their large size and/or habitat quality. With the exception of Mentor Marsh in Lake County, all the highest quality wetlands were located between Toledo and Sandusky Bay. The text briefly describes each wetland and gives the distributional status of each bird species.

### Introduction

The most extensive system of wetlands in the Great Lakes Basin occurs on the southwestern flank of Lake Erie. In that area more than 18,000 acres of estuarine, mudflat, swamp, marsh, and shallow open-water ecosystems

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(Cowardin et al. 1979) provide essential habitat for a great diversity of aquatic and semi-aquatic birds. This wetland avifauna provides people living in the Lake Erie Basin with a unique and irreplaceable recreational resource. The purpose of this study was to survey the breeding bird populations of Ohio's coastal zone wetlands. We hope that the data presented here will add to the knowledge of and appreciation for our avian resources, and provide a useful baseline for the game managers and field biologists who will assess Ohio's wetland avifauna in future years.

This report is divided into six parts. In the remainder of this section we review our methods and discuss a few caveats with regard to interpretation of the data. In the following section, the wetlands are described and unusual features noted. The third section, the longest portion of the study, consists of a catalog of the bird species observed during our surveys. A summary table of wetlands-nesting species, acknowledgments, and references, follow.

Of the 24 wetland parcels treated in this paper, seven were of such small size and had such obviously limited appeal to aquatic birds that we visited them only once. Most other parcels were visited two or three times; a few very attractive marshes (e.g., Little Cedar Point, Ottawa Refuge) were the subject of four or more visits. Typically a visit consisted of a slow, thorough walk along the edges of each wetland. Where diked access roads permitted we combined walking with automobile travel. The more extensive marshes with poor access by car or walking were surveyed by canoe. We estimate our total time in the field at 700 to 800 man-hours.

On all trips we carried binoculars and a spotting scope with a 20x objective. We also carried a battery-powered tape recorder and a cassette tape of rail, bittern, and marsh wren songs, which we played at intervals whenever we were within hearing distance of a stand of emergent vegetation.

We attempted to enumerate all species seen, despite the obvious errors inherent in such a procedure. Because of the impossibility of detecting all individuals and because of the differential detectabilities of the various species, few numbers are presented here. We do feel that our numerical estimates are valuable for marsh-to-marsh comparisons and as order-of-magnitude abundance indicators. Thus most of our numbers are converted to less precise (but hopefully less misleading) status designations such as "uncommon," "common," etc. (see Part III).

Readers should be aware of another important caveat in interpreting the results. All surveys were done between 1 June and 12 August, 1980. The occurrences and abundances given pertain only to summer 1980, and may not accurately reflect the avifauna of a given parcel in another summer or at another season. This variability in conditions from one year to the next is the



Fig. 1. The senior author and Larry Schlatter emerge from a day at Little Cedar Point Refuge. (Photo: E. Durbin)

result of several potent forces operating in the Lake Erie marshes: (1) ecological succession, which causes shallow water habitats to change gradually to emergent plant communities and ultimately to dry land, (2) variations in the water level of Lake Erie—a particularly potent force in marshes not well-protected by dikes, and (3) changes in the strategies of marsh managers, who regularly drain some impoundments to allow for soil aeration and establishment of annual forbs, and flood others to kill terrestrial vegetation and provide more waterfowl habitat.

In the pages that follow two conventions are adopted. The names of bird species considered rare or endangered in Ohio are given in capital letters wherever mentioned. These species all appear on the Ohio Natural Heritage Program's "Special Animals" list. Asterisks are used following the name of any marsh parcel considered to be of unusual value as a habitat for nesting birds. Also, in order to preserve space, the scientific names of all bird species are given only after the common names on the annotated list beginning on page 66.

#### Descriptions of the Marshes

The following describes the major wetland parcels near Lake Erie, beginning near Toledo and proceeding eastward. There are 24 parcels in all, of

which we judged 11 to be especially significant because of their size and/or quality. These 11 "significant" parcels are indicated by asterisks. Acreages are approximate, and include only marshland unless otherwise indicated.

1. Maumee Bay State Park\* (Lucas County); 1200 acres, including uplands. Visited 4, 6, 7, 9, 14 June; 6 Aug.

This area is mostly open field rather than wetlands, although wet spots exist in ditches and between North Curtice and Cousino Roads. There is an extensive sandy beach along the Lake Erie shore. Most of this area will soon be "developed" (i.e., made unsuitable for most birds). This is especially unfortunate since no less than 7 bird species on the Ohio Natural Heritage Program's "Special Animals" list occur there. Included are UPLAND SAND-PIPER (probable nester), MARSH HAWK (common migrant and winter visitant and possible nester), SHORT-EARED OWL (status same as marsh hawk, unsuccessful nesting in April 1980), WESTERN MEADOWLARK (nested successfully in 1980, present in other years), BOBOLINK (many pairs), DICKCISSEL (at least 6 males on territory in June 1980), and GRASSHOPPER SPARROW (at least 2 pairs). The field portion of this parcel is probably the best habitat for open country birds in the Toledo area.

2. Little Cedar Point National Wildlife Refuge\* (Lucas County); 1500 acres. Visited 7, 14, 20 June; 7, 13 July.

Little Cedar Point (LCP) is the equal of any other parcel as a home for wetland species. All important wetland habitats are represented: swamp forest, open water, mudflat, sand beach, sedge meadow, cattail marsh, etc. Although the variety and quality of habitats are excellent, the acreages of most of them are exceeded elsewhere. Open water a few inches in depth and emergent marshes are the most extensive habitats.

LCP was the only marsh in which we recorded 3 RAIL species. Gallinules and LONG-BILLED MARSH WRENS were abundant at LCP, and the presence of 10 kinds of ducks was also notable. BALD EAGLES have set up residence at LCP within the past year. We saw both members of the pair during our surveys, and have high hopes that a successful nesting will take place in the future.

3. Toledo Trust Swamp (Lucas County); 275 acres. Visited 4, 20 June; 2 Aug.

This rather small area comprises a marsh and swamp forest southeast of LCP Refuge adjacent to the Toledo Water Pumping Station. Birds there consisted of a limited subsample of the more common species at LCP.

4. Metzger Marsh (Lucas County); less than 200 acres. Visited 21 June; 26 July.

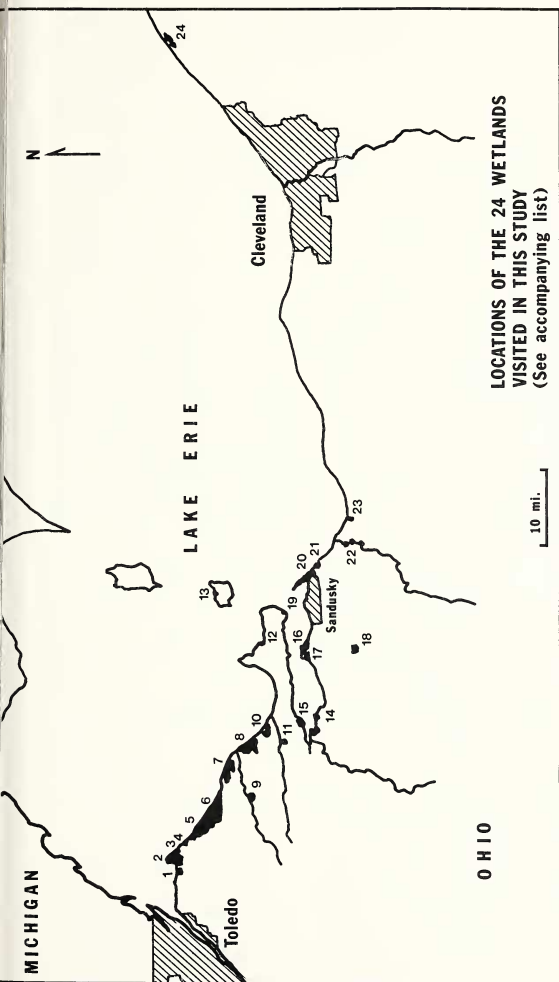


Fig. 2. Wetland parcels surveyed in study. Sites are numbered in geographic order, from west to east. Parcels judged to have outstanding natural value are denoted by asterisks (\*). 1. Maumee Bay State Park.\* 2. Little Cedar Point National Wildlife Refuge.\* 3. Toledo Trust Swamp. 4. Metzger Marsh. 5. Ottawa National Wildlife Refuge.\* 6. Magee Marsh complex.\* 7. Navarre Marsh.\* 8. Toussaint Shooting Club.\* 9. Toussaint

Creek Wildlife Area. 10. Darby Marsh.\* 11. Little Portage River Wildlife Area. 12. East Harbor State Park. 13. Kelleys Island North Pond. 14. Willow Point Wildlife Area. 15. Winous Point Shooting Club.\* 16. Bay View marshes.\* 17. Moxley's Marsh.\* 18. Resthaven. 19. Bay Point Shoal. 20. Wildlife Realty/East Bay marshes. 21. Sheldon's Marsh. 22. Huron River marshes. 23. Old Woman Creek Sanctuary. 24. Mentor Marsh.\*

Metzger Marsh is not protected from Lake Erie by dikes, and consequently its water levels conform to those of the lake. North winds are accompanied by strong wave action which causes erosion and the uprooting of cattails. We saw much evidence of this destruction when we explored Metzger by canoe. Open water and broadleaf cattail (*Typha latifolia*) stands are the only habitats. Most of Metzger is too deep for rails and shorebirds.

5. Ottawa National Wildlife Refuge and Crane Creek Experiment Station\* (Lucas and Ottawa Counties); 3200 acres. Visited 4, 20, 21 June; 24 July; 2 Aug.

Ottawa forms part of a continuous marsh complex (see No. 6) that is unequaled elsewhere in Ohio and probably in the entire Great Lakes region as a water bird habitat. The refuge includes a series of large diked impoundments. Water levels are regulated by pumping, and vary from one impoundment to the next depending on the management strategies of refuge personnel. In the 1980 nesting season a variety of water levels were available, ranging from wet field and shallow cattail habitats in the northwest sector along Veler Road to open water with fringing mudflats in the eastern portions. Dominant shallow water plants at Ottawa included smartweeds (*Polygonum* spp.), flowering rush (*Butomus umbellatus*), cattails (*Typha* spp.), and various sedges (*Scirpus*, *Cyperus* and *Carex* species). Several small swamp forest parcels at Ottawa are vitally important for the songbirds and raptors there.

BALD EAGLES nested successfully at the refuge in 1980 (two young were fledged) and the presence of seven species of herons and ten species of ducks was remarkable. Also notable was a successful nesting of WILSON'S PHALAROPE, the first Ohio nesting of this species in this century. Canada Geese were more abundant here and at neighboring Crane Creek Experiment Station than anywhere else in Ohio.

6. Magee Marsh\* (Ottawa County); 1850 acres. Visited 10, 11, 21 June; 6 July; 12 Aug.

Magee and Ottawa (No. 5) are more or less continuous, and together form the largest and best marsh parcel in Ohio. Much of what was said about the appearance of Ottawa also holds for Magee, although Magee has little terrestrial habitat and is less varied. Magee had a BLACK TERN colony (missing from Ottawa) but fewer ducks and herons. A unique feature of Magee Marsh was a large central area of damp grassy terrain. This habitat looked suitable for COMMON SNIPE, SHORT-BILLED MARSH WRENS, and possibly the rare BLACK and YELLOW RAILS. However, only the COMMON SNIPE was recorded during our canoe trip around the periphery of this area. The relative inaccessibility of this location and the large number of marshes on our agenda

prevented our investigating the center of Magee Marsh at night. Perhaps an entire summer of concerted effort in that one area would yield some records of the rare, elusive small rails.

7. Navarre Marsh\* (Ottawa County); 1050 acres. Visited 13, 24 June; 9, 23 July.

Navarre is a collection of diked impoundments located between the community of Sand Beach and the Davis-Besse Nuclear Power Plant. The western-most parcel (behind Sand Beach) is the most attractive habitat for water birds. In 1980 it had a variety of emergent macrophytes interspersed with open water areas. This impoundment supported a nesting colony of BLACK TERNS.

Water levels elsewhere in Navarre were low, however. Cattails grew on exposed mud, and the acreage of cattails was low. Reflecting this lack of cattails, we recorded no RAILS or LONG-BILLED MARSH WRENS at Navarre. Common Gallinules, Great Blue Herons, and GREAT EGRETS were fairly numerous, and we also noted the presence of a thriving colony of CLIFF SWALLOWS (17 nests in 1980) on an old building in nearby Sand Beach.

8. Toussaint Shooting Club\* (Ottawa County); 1800 acres. Visited 12, 20 July.

A truly excellent diked wetland at the mouth of Rusha Creek, Toussaint Shooting Club contained large amounts of both marsh and open water habitats. Stretches of cattail were not extensive; much of the emergent vegetation was mallow (*Hibiscus moscheutos*), pickerelweed (*Pontederia cordata*), arrowhead (*Sagittaria* spp.), water lily (*Nymphaea* sp.), and spatterdock (*Nuphar* sp.).

Great Blue Herons, GREAT EGRETS, SORAS, and BLACK TERNS were present in good numbers. One extensive mudflat and several very shallow spots had exceptional migrant shorebird and tern concentrations after early July. Toussaint Shooting Club was our best "find" of the summer. We rate this area as the equal of any other privately owned wetland in the state.

9. Toussaint Creek Wildlife Area (Ottawa County); 175 acres. Visited 10, 12, 17, 20 June.

This is a moderately small area of enclosed marshes on the south shore of the Toussaint River 4.2 mi upstream from Lake Erie. The marsh is dominated by cattails, and there are also some swampy areas with willows (*Salix* spp.) and other woody species. Most of the enclosed marsh is quite shallow; hence ducks and coots are scarce. The habitat appears attractive for RAILS but few were recorded there, perhaps because as a breeding habitat the area is small relative to other parcels nearby.

10. Darby Marsh\* (Ottawa County); 550 acres. Visited 19, 30 June; 16 July.

Although we rated Darby as one of the more significant wetlands, a number of other locations were much better. In 1980, at least, Darby fell near the middle of the list of 24 sites as a habitat for wetland birds. Water levels at Darby were relatively low, and the amount of attractive-looking marsh habitat was correspondingly limited. Thus, Darby had a low diversity of ducks and small numbers of herons, especially the GREAT EGRET. RAILS were not encountered. On the other hand, passerines were numerous—especially the Yellow Warbler, which was abundant.

11. Little Portage River Wildlife Area (Ottawa County); c. 200 acres. Visited 8 July.

Virtually dry in 1980. A few Great Blue Herons were seen feeding along one ditch. Deerflies were abundant, but birds scarce. Even Red-winged Blackbirds were absent on our only visit. The area was not worth revisiting.

12. East Harbor State Park (Ottawa County); 1100 acres. Visited 12 June.

The marsh areas within this state park are limited to two large cattail-choked lagoons behind the South Beach lakefront breakwater. Although small, the marsh provides adequate habitat for LONG-BILLED MARSH WRENS, and serves as a feeding ground for the larger waders. The other impoundments within the park are open deep water, with only a fringe of cattails.

13. Kelleys Island North Pond (Erie County); c. 40 acres. Visited 17 July.

This small wet area on otherwise dry and rocky Kelleys Island was disappointing. The margin of the shallow pond is dominated by arrowhead rather than cattail. Only along the south side of the pond is there any really attractive avian habitat. This area of wet meadow and sedge, like many others we found within and along the borders of marsh tracts, seems entirely suitable for the small rails, but none were encountered.

14. Willow Point Wildlife Area (Erie County); c. 90 acres. Visited 8 July.

This area, on the south side of Sandusky Bay, consists of series of small marsh parcels behind dikes. Accessibility is rather poor. Our field notes state: "Good cattails, good mosquitos, good deerflies." Despite the cattails, relatively few aquatic birds were seen at Willow Point.

15. Winous Point Shooting Club\* (Ottawa and Sandusky Counties); 2800 acres. Visited 17 June, 24 July.

Winous Point contains excellent aquatic bird habitat, thanks largely to



the continual efforts of Dr. Robert Meeks, the Shooting Club's manager, and his staff. The club consists of several large impoundments on both sides of Sandusky Bay. Virtually all types of wetland vegetation are represented within the impoundments, and small acreages of swamp forest are also present.

Birds at Winous Point included 10 species of ducks, 5 of herons, abundant coots and LONG-BILLED MARSH WRENS, BALD EAGLES, many migrating shorebirds, and good numbers of SORA and VIRGINIA RAILS. Two thriving Great Blue Heron nesting colonies are an added attraction.

16. Bay View marshes\* (Erie County); 900 acres. Visited 3, 26 July.

These marshes, located east of the town of Bay View, Ohio, are owned for the most part by Medusa Cement Co. They are large and varied, and provide fair to excellent waterbird habitat depending on the parcel. The largest sections are protected from Lake Erie by an elevated railroad bed and a highway. The smaller outer section is exposed to the lake, and wave action takes its toll of the vegetation there during storms and north winds.

VIRGINIA and SORA RAILS were numerous at Bay View, as well as coots and LONG-BILLED MARSH WRENS. The inner marshes supported many herons and migrant shorebirds; the outer marsh was too deep (mostly 9-24 in.) to provide good shorebird habitat. Water levels in the inner marshes were low, and there was much exposed mud and damp grassy flats.

17. Moxley's Marsh\* (Erie County); 275 acres. Visited 1, 8 July.

Moxley's, a privately-owned marsh, is protected from Lake Erie by the Bay View marshes and Ohio Route 2. Much of Moxley's was dry during our visits, but the vegetation and cracked mud suggested higher water levels in the recent past. This was an attractive parcel, containing a large heronry at its eastern end and habitat for shore and open country birds as well as aquatic species. LONG-BILLED MARSH WRENS were common, and Moxley's also set our one-day high count for Killdeers: 68 on 1 July.

18. Resthaven (Erie County); 1200 acres. Visited 1 July.

Technically Resthaven is not in the Ohio Coastal Zone, but we include it here because of its reputation as a good bird place and its proximity to parcels 16 and 17.

Unfortunately we found Resthaven to be a relatively poor place for aquatic birds. Most "wet" habitats were series of parallel ditches from which marl had been stripped. Some ditches contained cattails and bulrush (*Scirpus*) while others had been overgrown with woody vegetation. There is good habitat for field and undergrowth species at Resthaven.

19. Bay Point Shoal (Ottawa County); c. 100 acres. Visited 15 July. Bay Point is opposite Cedar Point at the mouth of Sandusky Bay. Common Terns use it for resting and feeding, but otherwise the shoal is small and attracts relatively few aquatic birds.

20. Wildlife Realty/East Bay marshes (Erie County); 700 acres. Visited 10 July.

The Wildlife Realty marshes, including the East Bay marshes purchased by ODNR, were mostly open water bay with a few arrowhead patches and a very scant fringe of cattails. The area might be good for diving ducks during the migrations, but offers little nesting habitat.

21. Sheldon's Marsh (Erie County); 650 acres. Visited 10, 15 July; 5 Aug.

Sheldon's Marsh is not a marsh, but rather an open lagoon at the mercy of variations in the level of Lake Erie. There were patches of arrowhead here and there, and a cattail fringe grew along the shore in the southwest sector. Habitat for marsh birds was obviously limited. The most attractive features of Sheldon's Marsh were an upland forest and a secluded beach and sand bar, the latter very attractive to gulls and terns.

22. Huron River marshes (Erie County); 150 acres. Visited 31 July, 4 Aug.

The Huron River marshes are a series of rather small, widely separated wetland patches along the Huron River channel south of the city of Huron, Ohio. Most are old river oxbows choked with emergent, broadleaf macrophytes. There were also a few cattail fringes on islands in the Huron River. The only attractive parcel was a small marsh along the railroad tracks 2 mi south of Huron. This marsh, dominated by *Scirpus atrovirens*, grasses, and a few cattails, contained a small number of RAILS.

23. Old Woman Creek Sanctuary (Erie County); 7 acres. Visited 31 July, 4 Aug.

Old Woman Creek Sanctuary is mostly open water and upland forest. Since the lower portion of Old Woman Creek is an estuary, water levels were quite high there in 1980, and habitat for marsh birds was virtually absent.

24. Mentor Marsh\* (Lake County); 800 acres. Visited 26, 27 June; 6 Aug.

Mentor is a long, narrow sinuous marsh set between steep forested ridges near Lake Erie. It occupies what appears to be an old channel of the Grand River. The most striking feature of this marsh is the dominance by giant reed (*Phragmites communis*). These reeds and broadleaf cattails form a tall, impenetrable cover over almost the entire wetland. Consequently, Mentor is a very difficult place to see birds. Of all the marshes we visited, only Mentor

approximated Brown's (1815) descriptions of the Lake Erie marshes of pre-settlement days.

The marsh provided good habitat for LEAST BITTERN, VIRGINIA and SORA RAILS, LONG-BILLED MARSH WRENS, and SWAMP SPARROWS. Birds requiring open or deep water habitats were absent. The AMERICAN BITTERN and the Common Gallinule are on the breeding bird list for Mentor Marsh but we did not encounter them during our surveys.

### Bird Species Present

During our surveys we recorded 138 species of birds. These are listed below. The order and names used follow the A.O.U. checklist (1957; with addenda by A.O.U. committee on classification and nomenclature 1973, 1976). Each discussion is preceded by a comment on the bird's status in the Lake Erie marshes during June and July of 1980. Status designations may be interpreted as follows:

**Abundant:** Present in such large numbers that the species would be obvious to even the most casual observer; no particular effort is required to find it. Passerines and other small birds given this status exist in the hundreds or even thousands of individuals in a single marsh; for large birds such as ducks or herons "abundant" indicates over 100 individuals of a species in one parcel.

**Common:** Present in the appropriate habitat; virtually always found when an effort is made to discover it.

**Fairly common:** Intermediate in abundance and frequency of occurrence between "common" and "uncommon" species; see following.

**Uncommon:** Species with this status are seen in a minority of trips to a given locale, either because they are not often present or because they are present in such small numbers that they are frequently overlooked.

**Rare:** Seen perhaps one or two times in a season; very few individuals present. Very scarce but conspicuous birds such as the Bald Eagle may be given this designation despite their being seen on a high proportion of visits.

The following list contains a number of species that do not nest in the marshes themselves. We included all species that used the marshes or the air over them for feeding, as well as species that occurred in habitats immediately bordering the marsh. The list does *not* include birds we didn't find, even though we may suspect their presence (e.g., American Bittern, Screech Owl).



Fig. 3. Pied-billed grebe at Crane Creek State Park. (Photo: E. Tramer)

#### GREBES (Order Podicipediformes)

1. Pied-billed Grebe (*Podilymbus podiceps*)—Fairly common breeder in the larger marshes; generally absent from the smaller parcels. Recorded in 9 of the 24 places visited; most numerous at LCP, Magee, and Winous Point.

#### CORMORANTS (Order Pelecaniformes)

2. DOUBLE-CRESTED CORMORANT (*Phalacrocorax auritus*)—Very rare. One bird seen flying off the beach at East Harbor State Park. Apparently does not breed in Ohio's Lake Erie marshes.

#### HERONS, EGRETS and BITTERNs (Order Ciconiiformes)

3. Great Blue Heron (*Ardea herodias*)—Common to abundant. This was the only bird encountered in all 24 locations. Great blues used most of the marshes only for feeding. Nesting was restricted to a few large colonies, the most notable being at West Sister Island (8 mi north of Ottawa National Wildlife Refuge in Lake Erie), Moxley's Marsh, and Winous Point. Marshes in which this species was especially abundant

were LCP, Ottawa Refuge, Navarre, Toussaint Shooting Club, and Winous Point.

4. Green Heron (*Butorides striatus*)—Fairly common breeder. Although present in 19 of 24 marshes, this species was not numerous anywhere. Our highest count was 9 individuals at Mentor Marsh.
5. Little Blue Heron (*Florida caerulea*)—Rare summer visitor; probably does not nest in the Lake Erie marshes. Four adult-plumaged birds were feeding at Crane Creek Experiment Station on 2 August. At least one bird was also present through May in Ottawa Refuge.
6. Cattle Egret (*Bubulcus ibis*)—Rare summer resident and probable breeder. Rumored nestings on West Sister Island. We encountered this species three times, once at Ottawa Refuge, once at Magee Marsh, and once in a small pasture south of Locust Point on Route 2—the last record a flock of 40 birds on 31 July.
7. GREAT EGRET (*Casmerodius albus*)—Common summer resident. Most of the great egrets summering in western Ohio nest on West Sister Island. Found in 19 of 24 marshes. This species is virtually absent from eastern Ohio in summer. From the perspective of a resident of north-western Ohio, this species hardly merits inclusion on the Ohio "Special Species" list. If it is included because of its scarcity elsewhere in the state, all other herons save the Great Blue and the Green should be accorded the same status.
8. Snowy Egret (*Egretta thula*)—Rare summer visitor. We saw one young individual at Winous Point on 24 July. Recently there have been a number of May records of this species at LCP and Ottawa Refuge, and a naturalist at the Crane Creek visitors' center told us that egrets nested on West Sister Island this summer (were these Cattle Egrets?). The nesting status of Cattle and Snowy Egrets in Ohio needs to be investigated.
9. Black-crowned Night Heron (*Nycticorax nycticorax*)—Common summer resident in western Ohio, fairly common to rare east of Port Clinton. Most individuals apparently nest on West Sister Island. This species was most abundant in diked marshes where there were rows of large willows (*Salix nigra*) to roost in. Highest numbers were at LCP, Magee, Navarre, and Toussaint Shooting Club.
10. LEAST BITTERN (*Ixobrychus exilis*)—Uncommon nester in the larger marshes. We encountered this species at LCP and Mentor. Others have recorded it at Ottawa Refuge and Winous Point. No doubt it occurs in small numbers in all the larger marshes where there are extensive cat-tails.



Fig. 4. The Great Egret is common from Sandusky Bay westward. (Photo: E. Tramer)

#### GEESE and DUCKS (Order Anseriformes)

11. Canada Goose (*Branta canadensis*)—Assigning an overall status to this species is difficult, if not impossible. It is exceedingly abundant in some places and absent from others. It was encountered in 10 of 24 parcels. Where breeding conditions have been enhanced by nest boxes, artificial islands, etc., the species thrives. Ottawa Refuge and neighboring Crane Creek had the largest populations; the goose was also common at LCP, Navarre, and Darby. It was absent from some of the most attractive marshes, such as Winous Point and Moxley's. This species is quite adaptable and may nest on small ponds and in highly artificial situations. For example, although it was absent from Mentor Marsh proper

- we saw Canada Geese on a number of small farm and park ponds in the surrounding countryside.
12. Mallard (*Anas platyrhynchos*)—Common to abundant nester. Easily the most numerous and widely distributed species of waterfowl in the region. Mallards were abundant at LCP, Ottawa Refuge, Magee, and Winous Point.
  13. Black Duck (*Anas rubripes*)—Uncommon or rare at LCP, Ottawa, Toussaint Shooting Club, and Winous Point. Not encountered elsewhere.
  14. Gadwall (*Anas strepera*)—Rare. Single males were seen at Ottawa Refuge and Bay View marsh. Small numbers have been known to breed in the larger marshes in past years.
  15. Pintail (*Anas acuta*)—Uncommon to rare in the larger marshes. We encountered this species in 5 locations. Highest count was 6 at Navarre marsh.
  16. Green-winged Teal (*Anas crecca*)—Uncommon to fairly common breeder in the larger marshes. Seen in 7 of the 24 parcels, this species was most numerous in Magee Marsh, where we saw 19 birds on 6 July.
  17. Blue-winged Teal (*Anas discors*)—Fairly common in the larger parcels. Nearly 200 of these birds summered in the Ottawa Refuge-Magee Marsh complex. The species was not nearly so numerous elsewhere.
  18. American Wigeon (*Anas americana*)—Rare in the larger marshes. A flock of 15 at Ottawa 4 June was apparently a non-breeding aggregation. Otherwise numbers were 6 or less in each parcel. Found in 6 locations.
  19. Shoveler (*Anas clypeata*)—Rare and local. Our only record was of two pairs at Magee Marsh. The Shoveler has nested in past years at LCP, Ottawa Refuge, and Winous Point.
  20. Wood Duck (*Aix sponsa*)—Fairly common to absent, depending on the location. Recorded in 14 of 24 parcels. The maximum number recorded was more than 100 at LCP on 14 June, but this included a large proportion of young birds. Like most of the waterfowl, this duck preferred the larger marshes.
  21. Redhead (*Aythya americana*)—Rare breeder. A pair summered at LCP, and nestings have occurred in past years at Magee Marsh.
  22. Ring-necked Duck (*Aythya collaris*)—Possible rare breeder. A non-breeding male summered at Winous Point. In other years pairs have been seen in summer at Ottawa Refuge and LCP.
  23. Canvasback (*Aythya valisineria*)—Rare summer visitor; possible breeder. Canvasbacks occasionally appear in the summer in the Lake Erie marshes; we saw a male at LCP on 7 June and another at Ottawa on 21 June.

24. Lesser Scaup (*Aythya affinis*)—Rare summer visitor; very rare breeder. A nonbreeding male was present at Winous Point in 1980. In prior years this species has nested at LCP and possibly elsewhere.
25. Ruddy Duck (*Oxyura jamaicensis*)—Rare summer resident. There are breeding records for Magee Marsh, and our observations of groups of both sexes into July suggest possible breeding of this species in three places in 1980: LCP, Winous Point, and Bay View. We also saw a single male at Toussaint Shooting Club.
26. Hooded Merganser (*Lophodytes cucullatus*)—Rare summer resident. There are nesting records for this species at several locations in Ohio's coastal zone. In 1980 we saw 1 female at Toussaint Creek Wildlife Area 12 June; her secretive actions suggested the possibility of a nearby nest. We also saw 4 birds of this species at Ottawa Refuge on 24 July.

#### VULTURES, HAWKS, and EAGLES (Order Falconiformes)

27. Turkey Vulture (*Cathartes aura*)—Uncommon visitor. Seen soaring over 7 parcels. All of our observations were in the area from Navarre Marsh eastward to Huron.
28. Red-tailed Hawk (*Buteo jamaicensis*)—Uncommon. Seen in 8 of the 24 marshes. No more than 2 were found at any one location.
29. RED-SHOULDERED HAWK (*Buteo lineatus*)—Rare. A single bird was seen on 4 June at Ottawa Refuge and another on 10 June at Magee. It is possible that these sightings involved the same bird.
30. Broad-winged Hawk (*Buteo platypterus*)—Rare nester. Recorded at Mentor Marsh 27 June. This species is more likely at Mentor than in western Ohio in the summer.
31. BALD EAGLE (*Haliaeetus leucocephalus*)—Rare resident. Present, and relatively conspicuous, at LCP, Ottawa Refuge and Winous Point. We saw at least 8 individuals: one adult and one immature at LCP, 2 adults and 2 nestlings at Ottawa, and one adult and one immature at Winous Point.
32. MARSH HAWK (*Circus cyaneus*)—Very rare nester. Has apparently nested in recent years along Veler Road in Ottawa Refuge. We saw one large brown-plumaged bird (female?) there on 4 June. Nestings are suspected at Maumee Bay State Park and LCP in recent years, but not in 1980.
33. American Kestrel (*Falco sparverius*)—Uncommon at the edges of wetlands. Most often seen where agricultural land abuts the marsh. We found this species at 6 of 24 marshes. Two adults with a recently fledged young were seen at Navarre.



## GAME BIRDS (Order Galliformes)

34. Ring-necked Pheasant (*Phasianus colchicus*)—Uncommon. We expected to encounter this species frequently, but it occurred in only 4 places: Maumee Bay State Park, LCP, Ottawa Refuge, and Winous Point. Pheasants are rather secretive in summer, but considering the small number of sightings and hundreds of hours spent afield, we judge this species to be scarce at the present time.

## RAILS, GALLINULES, and COOTS (Order Gruiformes)

Rails are among the most difficult birds to census because of their secretive habits and the difficulty of traversing their preferred haunts. We attempted to detect the presence of rails by canoeing or wading along the edge of tracts of emergent vegetation while we played tape recordings of their songs. We also played tapes at night in some of the "best-looking" rail habitats, since these birds are reputed to call more readily in the dark. During June we experienced almost total failure. Our tapes were greeted with silence by the rails, although other species (coots, marsh wrens, etc.) were often stimulated to answer the rail tapes with their own vocalizations.

At Mentor Marsh in late June we were finally successful—a number of Virginia Rails answered. Upon our return to western Ohio we discovered the Virginia Rails there had suddenly "found" their voices as well. On 12 July at Toussaint Shooting Club we succeeded in getting responses from Soras, and from then on both Virginia and Sora Rails were relatively easy to find, even in marshes where no rails had answered in June. We conclude that rails are quite secretive while incubating eggs, and perhaps also while their young are very small. We saw a number of juvenile Virginias and Soras, all nearly adult size, at the time that both species began responding to the tapes.

We also became rather proficient at recognizing "good" rail habitat: tall emergent vegetation (not necessarily cattails) in very shallow water (1-4 in.) is the best. Other bits of information are as follows: (1) Virginia Rails will respond to King Rail calls as well as their own; (2) Soras respond only to Soras and not to other rails, but they are much more likely than Virginias to answer a sudden handclap or a stone thrown into the marsh; and (3) Soras and Virginias are ecologically compatible. Clumps of vegetation where one species was numerous usually harbored many of the other species as well. They often came out to the edge of the vegetation in response to the tapes and fed peaceably within a few feet of one another.



Fig. 5. Nest and eggs of an American Coot in Little Cedar Point National Wildlife Refuge. (Photo: E. Durbin)

35. KING RAIL (*Rallus elegans*)—Rare summer resident and presumed breeder. Heard in cattails near the west gate at LCP on 4 July; seen by other observers near the LCP east gate as well. We lured another bird into the open at Magee Marsh on 6 July; it fed briefly at the edge of some cattails near 2 Virginia Rails. Andrews (1973) found King Rails to be at least as common as Virginias and Soras at Winous Point in 1970—

71. Perhaps subsequent high lake levels, which destroyed most of Winous Point's marshes in 1972-73, reduced the King Rail population to a low level from which it has not yet recovered.
36. VIRGINIA RAIL (*Rallus limicola*)—Fairly common nester in the larger marshes. We saw many young birds in July. Virginias were detected in 9 of 24 parcels. Highest count was 12 at Bay View Marsh. Also numerous at LCP and Mentor.
37. SORA (*Porzana carolina*)—Fairly common nester in the larger marshes. Recorded in 8 parcels; young were seen on two occasions. Highest count was 13 at Bay View Marsh. Also numerous at Toussaint Shooting Club and Winous Point.
38. Common Gallinule (*Gallinula chloropus*)—Fairly common in the larger marshes; young birds were seen on several occasions. We recorded this species in 9 parcels. Gallinules were most abundant by far at LCP, where we saw more than 40 adults on 14 June. Also fairly numerous at Navarre, but strangely absent from the adjacent Toussaint Shooting Club. Our findings of relative abundance were similar to those of Brackney (1979).
39. American Coot (*Fulica americana*)—Fairly common to common nester in the larger marshes; seen in 12 parcels. Several nests were found and nest success was apparently quite high. For example, we saw at least 20 young at Magee on 6 July and more than 40 at Winous Point 24 July. In the Ottawa Refuge-Magee Marsh complex this species was concentrated in the area around the road out to Crane Creek beach; the reason for this pattern was not known.

#### SHOREBIRDS, GULLS, and TERNS (Order Charadriiformes)

Except for nesting Killdeers and Spotted Sandpipers, shorebirds were scarce until 3 July. Thereafter migrant species became increasingly numerous. Despite the fact that only 5 or 6 species of shorebirds nest in the Lake Erie marshes, their migratory habits make shorebirds an important component of our summer avifauna. Thus we include them here.

40. Semipalmated Plover (*Charadrius semipalmatus*)—Uncommon July visitor; becomes fairly common in August. Almost entirely restricted to mudflats. Encountered in 5 parcels, but no doubt occurs in all parcels where extensive mudflat exists.
41. Killdeer (*Charadrius vociferus*)—Conspicuous breeder in the vast majority of the parcels. Highest count was at Moxley's Marsh.
42. Golden Plover (*Pluvialis dominica*)—Very rare in June and July; an early

fall transient was seen with a large group of shorebirds on 20 July at Toussaint Shooting Club.

43. UPLAND SANDPIPER (*Bartramia longicauda*)—Probably absent from the marshes proper. A rare summer resident in extensive open fields. Habitat for this species exists at Maumee Bay State Park, where this species was seen several times in June 1980, and Ottawa Refuge, where the species has nested in prior years.
44. Greater Yellowlegs (*Tringa melanoleuca*)—Uncommon July transient; increases in abundance in August. Seen in 4 parcels, but more widespread later on.
45. Lesser Yellowlegs (*Tringa flavipes*)—Common transient beginning in early July. Seen in 9 parcels and probably occurs in nearly all of them on migration.
46. SOLITARY SANDPIPER (*Tringa solitaria*)—Fairly common fall migrant beginning in mid-July. Recorded in only 4 parcels, but regularly seen in most of the others by ourselves and other bird watchers during spring and fall migration.
47. Spotted Sandpiper (*Actitis macularia*)—Common nester along the edges of most of the larger marshes. Recorded in 13 parcels; highest count was 30 at Toussaint Shooting Club.
48. Ruddy Turnstone (*Arenaria interpres*)—Rare migrant. A late-migrating flock of 9 was seen on the beach at LCP on 7 June.
49. WILSON'S PHALAROPE (*Steganopus tricolor*)—Uncommon transient; normally not encountered in June or early July, but in 1980 a pair nested successfully at Ottawa Refuge. As best we can determine, this is the first attempted nesting in Ohio in this century. Personnel from Crane Creek Experiment Station discovered a nest containing 4 eggs on 4 June. At least two chicks hatched; these were banded and photographed on 22 June (Shieldcastle 1980). We observed the adult pair of phalaropes preening and feeding together on 21 June and 2 August.
50. American Woodcock (*Philohela minor*)—Probably a fairly common nesting species where thickets or swamp forests abut the edges of marshes. A regular breeder at Ottawa Refuge, LCP, Mentor, and probably elsewhere. We encountered an injured bird on Veler Road in Ottawa Refuge on 4 June, and saw several at Sheldon's Marsh and near Wildlife Realty marshes in the Cedar Point area.
51. COMMON SNIPE (*Capella gallinago*)—Local and uncommon summer resident. Although we found no nests or young, the presence of adults in at least 4 parcels during the summer leads us to designate the snipe as a nesting species. Seen at Ottawa Refuge, Magee Marsh, Toussaint



Fig. 6. Dowitchers and unidentified small sandpipers in silhouette at Ottawa National Wildlife Refuge. (Photo: C. Manzey)

- Shooting Club, and Bay View marshes. All sightings were in open wet areas with low vegetation.
52. Short-billed Dowitcher (*Limnodromus griseus*)—Locally common July transient; seen in 5 parcels. Especially numerous this summer in Toussaint Shooting Club.
  53. Semipalmated Sandpiper (*Calidris pusilla*)—Fairly common transient in July; becomes common to abundant later. Seen in 4 parcels, but by mid-August it undoubtedly occurs in all marshes.
  54. Least Sandpiper (*Calidris minutilla*)—Common transient in July; seen in the same 6 parcels as the Pectoral. No doubt it occurs in all of them.
  55. Pectoral Sandpiper (*Calidris melanotos*)—Fairly common July transient; seen in 6 of the larger marshes.
  56. Dunlin (*Calidris alpina*)—Rare migrant in June and July; a common to abundant migrant in May and September-October. June and July birds, seen in three parcels, included two obviously crippled individuals.
  57. Stilt Sandpiper (*Micropalama himantopus*)—Uncommon fall transient. In July 1980 small flocks of this species were encountered at Ottawa Refuge, Navarre Marsh, and Winous Point.
  58. Great Black-backed Gull (*Larus marinus*)—Rare summer visitor. An individual of this species in immature plumage was seen with a large

flock of Herring gulls at Sheldon's marsh on 10 July.

59. Herring Gull (*Larus argentatus*)—Common summer visitor. Seen in 17 of 24 parcels. Peak number was about 250 at both Toussaint Shooting Club and Sheldon's marsh. This species apparently nests on islands in the Lake.
60. Ring-billed Gull (*Larus delawarensis*)—This species was somewhat less numerous and less widespread than the Herring gull. We encountered it in 12 parcels.
61. Forster's Tern (*Sterna forsteri*)—Uncommon to rare July transient. We identified this species in only two places, but expect that it is more common and widespread in August and September.
62. COMMON TERN (*Sterna hirundo*)—Fairly common visitor to some of the larger marshes. Numbers increase in late July as adults and young leave their nesting colonies and congregate on mudflats in the marshes. Nesting areas are not located in the marshes; the species apparently uses islands and dredge spoils in Lake Erie proper. Seen in 6 parcels.
63. Caspian Tern (*Sterna caspia*)—Uncommon summer transient. We saw 1 or 2 individuals of this species at LCP throughout June. There are no nesting records for Ohio, however. In July we also saw this species at Toussaint Shooting Club, Bay View, and Sheldon's marsh.
64. BLACK TERN (*Chlidonias niger*)—Fairly common but local nester in the larger marshes. Seen in 8 parcels; definite nesting observations at LCP, Navarre, Magee, and Toussaint Shooting Club.

#### PIGEONS and DOVES (Order Columbiformes)

65. Rock Dove (*Columba livia*)—Seen in 7 parcels, but usually just flying low overhead. No doubt this species rarely, if ever, uses the marshes for feeding.
66. Mourning Dove (*Zenaida macroura*)—Common to fairly common resident at the fringes of the marshes. Seen in 17 of 24 locations.

#### CUCKOOS (Order Cuculiformes)

67. Yellow-billed Cuckoo (*Coccyzus americanus*)—Fairly common breeder in dense vegetation around the edges of dikes, swampy areas, etc. Seen in 12 parcels.
68. Black-billed Cuckoo (*Coccyzus erythrophthalmus*)—Uncommon breeder in the same habitats as the preceding species. Encountered in 7 parcels. This and the preceding species occurred in only 2 locations in common, suggesting either slightly different requirements or competitive exclusion between the 2 cuckoos.



Fig. 7. Nest and eggs of a Black Tern in Little Cedar Point National Wildlife Refuge. (Photo: E. Durbin)

#### OWLS (Order Strigiformes)

69. Great Horned Owl (*Bubo virginianus*)—Fairly common resident in marshes fringed with large trees. Encountered in only 4 parcels, but known to occur in virtually all of them.
70. Barred Owl (*Strix varia*)—Rare except at Mentor, where this species is the commonest large owl.

## SWIFTS and HUMMINGBIRDS (Order Apodiformes)

71. Chimney Swift (*Chaetura pelagica*)—Feeds regularly over all the marshes; nests in nearby chimneys, etc.
72. Ruby-throated Hummingbird (*Archilochus colubris*)—Uncommon breeder. Seen at LCP, Magee, Navarre, and Huron River.

## KINGFISHERS (Order Coraciiformes)

73. Belted Kingfisher (*Megaceryle alcyon*)—Fairly common from Navarre eastward; not encountered at Magee, Ottawa Refuge, or any of the Lucas County sites. Perhaps the extremely flat topography of north-west Ohio offers few nesting banks for this species.

## WOODPECKERS (Order Piciformes)

74. Common Flicker (*Colaptes auratus*)—Fairly common to common breeder on the edges of most of the marshes.
75. Red-bellied Woodpecker (*Melanerpes carolinus*)—Rare. Seen only at Mentor; has nested in the past at Ottawa Refuge.
76. Red-headed Woodpecker (*Melanerpes erythrocephalus*)—Uncommon in marshes with standing dead timber.
77. Downy Woodpecker (*Picoides pubescens*)—Fairly common on marsh fringes. Recorded at 7 locations.
78. Hairy Woodpecker (*Picoides villosus*)—Rare. This species prefers large stretches of woods; we saw it only at Mentor where extensive beech-maple forest surrounds the marsh.

## PERCHING BIRDS (Order Passeriformes)

79. Eastern Kingbird (*Tyrannus tyrannus*)—Common and widely distributed (in 18 parcels). This species often nests in very exposed locations; we saw several nests in dead trees in the open marsh.
80. Great Crested Flycatcher (*Myiarchus crinitus*)—Uncommon in swampy areas. Seen on the edges of 6 marshes.
81. Eastern Phoebe (*Sayornis phoebe*)—Rare. We saw a single bird in the Huron River marshes. This species frequently occurs in July and August on the Crane Creek State Park "Bird Trail," suggesting a nearby breeding site.
82. Willow Flycatcher (*Empidonax traillii*)—Common nester in willows, dogwoods, and other shrubs along the edges of most of the marshes. Seen in 15 parcels.
83. Eastern Pewee (*Contopus virens*)—Uncommon. A woodland bird that infrequently uses the marshes proper.



84. Horned Lark (*Eremophila alpestris*)—Rare visitor to the marshes in western Ohio. A common nester in nearby fields.
85. Tree Swallow (*Iridoprocne bicolor*)—Common to abundant in virtually all marshes. Numbers were highest in marshes with standing dead trees that provided nesting cavities.
86. Bank Swallow (*Riparia riparia*)—Abundant late summer migrant through the marshes; apparently does not nest in them.
87. Rough-winged Swallow (*Stelgidopteryx serripennis*)—Uncommon summer visitor and migrant. Nests outside the marshes in creek valleys and road cuts, etc.
88. Barn Swallow (*Hirundo rustica*)—Common summer visitor; nests on buildings and bridges nearby.
89. CLIFF SWALLOW (*Petrochelidon pyrrhonota*)—Rare visitor and migrant; nests at Sand Beach near Navarre Marsh.
90. Purple Martin (*Progne subis*)—Common summer visitor; nests nearby in man-provided structures. A few birds may actually nest in natural tree hollows in the marshes.
91. Blue Jay (*Cyanocitta cristata*)—Uncommon visitor to most of the marshes; common in uplands nearby.
92. Common Crow (*Corvus brachyrhynchos*)—Status same as Blue Jay.
93. Black-capped Chickadee (*Parus atricapillus*)—Generally absent from the marshes. Common resident in the woods surrounding Mentor Marsh.
94. Tufted Titmouse (*Parus bicolor*)—Uncommon visitor to the marshes proper; a common resident in upland woods.
95. White-breasted Nuthatch (*Sitta carolinensis*)—Status similar to the chickadee.
96. BROWN CREEPER (*Certhia americana*)—Rare. We saw a pair in standing dead and dying timber in Mentor Marsh. The behavior of these birds suggested a nearby nest.
97. House Wren (*Troglodytes aedon*)—Common and widespread nester in marshes with dead stubs and wet thickets; in 16 of 24 parcels.
98. LONG-BILLED MARSH WREN (*Cistothorus palustris*)—Locally common. Apparently restricted to marshes with tall cattails. Present in 13 parcels. Highest counts were at LCP, Magee, Metzger, Winous Point, and Bay View.
99. SHORT-BILLED MARSH WREN (*Cistothorus platensis*)—Rare. Our only record was an individual singing in atypical vegetation (cattails) in LCP on 14 June. Good habitat for this species is lacking in most of the marshes; the best-looking habitat we saw was in Magee Marsh.

100. Gray Catbird (*Dumetella carolinensis*)—Fairly common in thickets along the borders of marshes. Seen in 12 parcels.
101. Brown Thrasher (*Toxostoma rufum*)—Uncommon in thickets along marsh borders; in 9 parcels.
102. Robin (*Turdus migratorius*)—Common nester along wooded marsh borders. Often seen feeding far from trees on dikes.
103. Wood Thrush (*Hylocichla mustelina*)—Absent from the marshes proper; seen or heard in wooded areas adjacent to 5 of the parcels.
104. Blue-gray Gnatcatcher (*Polioptila caerulea*)—Rare breeder in swamp forests. Recorded at Winous Point and Mentor.
105. Cedar Waxwing (*Bombycilla cedrorum*)—Fairly common in wet forests and bushy areas along dikes, etc. No doubt nests in dense shrubs and low trees fringing many of the marshes.
106. Starling (*Sturnus vulgaris*)—Fairly common visitor; nested in small numbers where there was standing dead timber.
107. White-eyed Vireo (*Vireo griseus*)—A rare species of dense thickets. We heard a White-eyed singing at Resthaven.
108. Yellow-throated Vireo (*Vireo flavifrons*)—Absent from the marshes proper. Males of this species were singing in the forest adjoining Mentor Marsh.
109. Red-eyed Vireo (*Vireo olivaceus*)—Fairly common in wooded areas near the marshes; recorded adjacent to 9 parcels.
110. Warbling Vireo (*Vireo gilvus*)—Common nester in tall trees in marshes and along marsh borders. Recorded in 13 marshes.
111. PROTHONOTARY WARBLER (*Protonotaria citrea*)—Rare and local nester in swampy portions of marshes. We found this striking warbler at Crane Creek Bird Trail, Navarre, Toussaint Shooting Club, and Darby Marsh.
112. Yellow Warbler (*Dendroica petechia*)—Common to abundant nester in virtually all of the marshes. Highest densities were at Ottawa Refuge, Navarre, Darby, and Winous Point.
113. Yellowthroat (*Geothlypis trichas*)—Common and widespread nester. Recorded in 18 parcels, but nowhere as numerous as the preceding species. Highest densities were at Resthaven and Mentor.
114. Yellow-breasted Chat (*Icteria virens*)—Absent from most marshes; recorded in wet thickets at Navarre, Toussaint Shooting Club, and Darby Marsh. More common in dense upland habitats.
115. Hooded Warbler (*Wilsonia citrina*)—A bird of rich upland forests that rarely occurs in swampy areas near the marshes. A male of this species spent the summer in a small swampy woods at Navarre Marsh. The

- species nests in the forests surrounding Mentor.
116. American Redstart (*Setophaga ruticilla*)—Another upland forest bird that rarely visits swampy woods near the marshes. We heard males singing in June in wet woods at Ottawa Refuge and Magee Marsh.
  117. House Sparrow (*Passer domesticus*)—Uncommon visitor to the marshes, mostly along dry dikes or near buildings, as at Winous Point.
  118. BOBOLINK (*Dolichonyx oryzivorus*)—An uncommon summer visitor to the marshes; nests in extensive fields adjacent to several of the wetlands. Seen at Maumee Bay State Park (nesting), Ottawa Refuge (nesting), Magee Marsh (transients), Toussaint Creek Wildlife Area (lone territorial male), and Moxley's (a flock of transients feeding on the dike).
  119. Eastern Meadowlark (*Sturnella magna*)—Rare in the marshes; seen only at Moxley's, although meadowlarks were uncommon nesters in fields adjacent to a number of other parcels.
  120. WESTERN MEADOWLARK (*Sturnella neglecta*)—Nested successfully at Maumee Bay State Park in a large field. An adult was seen feeding a fledgling on two occasions in July.
  121. Red-winged Blackbird (*Agelaius phoeniceus*)—Common to abundant; widespread.
  122. Orchard Oriole (*Icterus spurius*)—Rare summer resident and probable rare nester in edges adjacent to marshes. Encountered at Winous Point and on Kelleys Island.
  123. Northern Oriole (*Icterus galbula*)—Fairly common nester in trees lining dikes, etc. Seen in 14 parcels.
  124. Common Grackle (*Quiscalus quiscula*)—Common visitor to marshes and marsh edges; nested where swampy forests existed near the marshes.
  125. Brown-headed Cowbird (*Molothrus ater*)—Fairly common visitor to the edges of marshes; seen in 10 parcels. A frequent brood parasite of the Yellow Warbler and other small open-nesting species.
  126. Cardinal (*Cardinalis cardinalis*)—Common nester in thickets and wooded areas bordering the marshes.
  127. Rose-breasted Grosbeak (*Pheucticus ludovicianus*)—A moist forest species. Rare breeder in the vicinity of the marshes, except for Resthaven and Mentor, where it is fairly common.
  128. Indigo Bunting (*Passerina cyanea*)—Common to abundant in edge and thicket habitats bordering virtually all the marshes.
  129. DICKCISSEL (*Spiza americana*)—Rare. Loose colonies of territorial males summered in fields at Maumee Bay State Park and in Ottawa Refuge. Successful breeding was documented at the state park.

130. American Goldfinch (*Carduelis tristis*)—Common to abundant breeder on overgrown dikes and in fields adjoining marshes.
131. Rufous-sided Towhee (*Pipilo erythrophthalmus*)—Uncommon to rare breeder in woods and thickets; not a bird of the marshes proper. Encountered only in central and eastern Ohio.
132. Savannah Sparrow (*Passerculus sandwichensis*)—Uncommon visitor; probable rare nester on grassy dikes within a few of the marshes but much more likely on upland fields nearby.
133. GRASSHOPPER SPARROW (*Ammodramus savannarum*)—Absent from the marshes. At least 2 pairs summered at Maumee Bay State Park in a large open field with very low vegetation.
134. HENSLOW'S SPARROW (*Ammodramus henslowii*)—Rare. Nested in a large wet field adjacent to marshes on Veler Road in Ottawa Refuge.
135. Chipping Sparrow (*Spizella passerina*)—An upland species that occasionally fed on dikes or other dry open areas adjacent to the marshes.
136. Field Sparrow (*Spizella pusilla*)—Status same as the Chipping Sparrow.
137. SWAMP SPARROW (*Melospiza georgiana*)—Absent from most of the marshes; a rare nester in 3 western parcels, fairly common in 3 easterly ones. We were astonished at the scarcity of this species as a breeding bird. It nested in abundance at Irwin Prairie (an inland marsh west of Toledo), and migrates and winters commonly in most of the marshes in the state. The reasons for its virtual absence from the western Lake Erie marshes in summer 1980 are not known.
138. Song Sparrow (*Melospiza melodia*)—Common in virtually all of the parcels. Restricted to marsh edges and places in the marshes where heavily vegetated soil protrudes above the water surface.

TABLE 1  
Summary of wetlands-nesting species by parcel.

Species	Parcel																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Pied-billed Grebe					F	F	F		F	U				F	U	U								
Great Blue Heron	U	A	F	F	A	C	A	A	F	A	F	C	U	U	A	C	C	U	U	F	U	R	R	
Green Heron	U	U	U	U	U	U	F	U	F	U	U			F	F	R	U	U	U	R	U	U	F	
Great Egret	U	A	F	F	C	C	C	A	F	F	U			U	F	C	F	F		R	U	U		
Black-cr. Night Heron		C	F	F	F	C	C	A	C	C		U	U	U	U	C	U		R					
Least Bittern		U																						U
Canada Goose		C			A	C	C	U	C	F	F				U	R								
Mallard		F	A	F	U	A	A	C	A	U	A	F	U	A	C	F	U	F		U	F	R	F	
Black Duck		U			R	R		R						R										
Gadwall																								
Pintail	U	R			U		U							R										
Green-winged Teal		U			U	F	U		U					U	U									
Blue-winged Teal	F	C			C	C	F	C	F					C	C	U								
American Widgeon		R			R	R	R	R						R										
Shoveller					U	U																		
Wood Duck	A				F	F	C	F	C	F				U	U	U	F	F		R	F			
Ruddy Duck		R						R						U	R									
Hooded Merganser					R				R															
Bald Eagle		R			R																			
Marsh Hawk					R																			

Migrants, non-nesting incidental visitors, and species of adjacent terrestrial habitats are excluded. Status designations: A—abundant, C—common, F—fairly common, U—uncommon, R—rare. Parcel numbers refer to the list on page 59.

TABLE 1 (continued)

Species	Parcel																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
King Rail	R				R																				
Virginia Rail	U			U	R	U	U								U	F	U					R			U
Sora	U							U	R						U	F						R			R
Common Gallinule	C			F	U	U	F	U	R	U		R			U	U									
American Coot	C			F	F	A	F	U	R	F					C	C	F		U						
Killdeer	U	F		R	C	C	F	C	U	C	U	U		U	C	C	C	U							U
Common Snipe					R	U		R								R									
American Woodcock					R														R	U					
Spotted Sandpiper	U	F			F	F	U	F	F					F	F	F		F		F	F	R			F
Wilson's Phalarope					R																				
Herring Gull	U	A		U	F	U	F	C	U	C		C			F	C	C		U	U	A	R			
Ring-billed Gull	U	C		U	F	U	F	C	C						U	F			U	U					
Common Tern		F				R	F	F							R			F		U	U				
Black Tern		F			R	F	F	C							R	R			U						
Belted Kingfisher							F	U	R				R	U	U	R	R								R
Red-headed Woodpecker		U			R			U				U										R	R		F
Eastern Kingbird	U	U			F	U	F	U	U			U			F	R	U	F	U			U	U		U
Eastern Phoebe					?																				
Willow Flycatcher	U	U			F	U	R		U	F	U	U		U	F	R	U	R							F



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